

Abstract

A method and apparatus is provided for attaching a bulk element processing an optical beam to a PLC and optically aligning the bulk element with an optical element formed on the PLC. The method begins by securing the bulk element to a first side of a substrate. A first side of a flexure element is secured to the first side of the substrate. A second side of the flexure element is secured to a first side of the PLC on which the optical element is formed such that the bulk element and the optical element are in optical alignment to within a first level of tolerance. Subsequent to the step of securing the second side of the flexure element, a force is exerted on at least a second side of the substrate to thereby flex the flexure element. The force causes sufficient flexure of the flexure element to optically align the bulk element and optical element to within a second level of tolerance that is more stringent than the first level of tolerance.